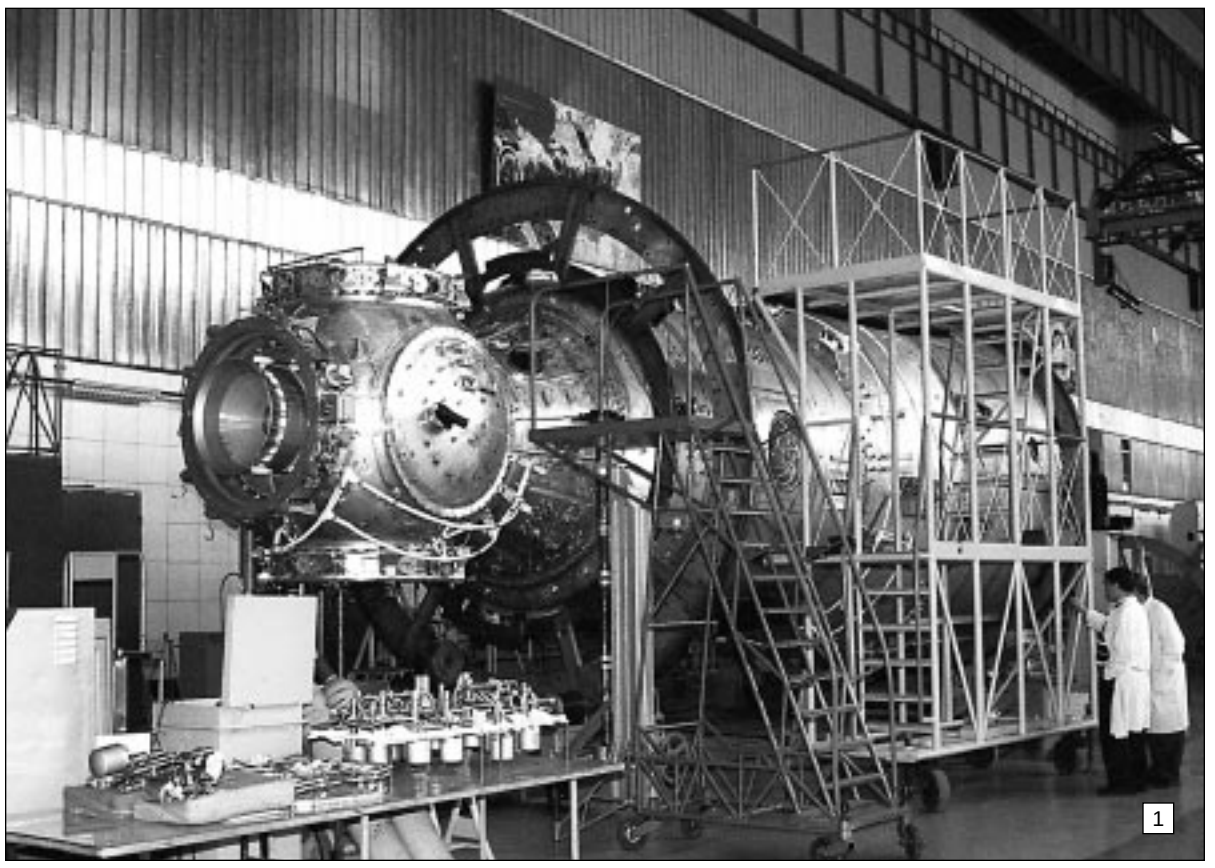

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Pace picks up for station crews, builders

As preparations continue for the launch of the first International Space Station elements next year, photographic evidence of station hardware and crew training are mounting.

In Russia, construction of the Functional Cargo Block—known by the Russian acronym FGB—and Service Module are progressing, and the first resident crew is training for its launch and a five-month stay on orbit.

In the U.S., work on Node 1—a connecting passageway to the U.S. laboratory module, Node 3 and an airlock with six docking hatches—is undergoing checkout at the Kennedy Space Center, and the STS-88 crew that will deliver it to orbit is practicing procedures for connecting it to the FGB. Left to right, top to bottom:

1) The 20-ton FGB, which will be launched on a Russian Proton rocket, is built at the Khrunichev State Research and Production Space Center in Moscow.

2) The first ISS crew poses aboard a Black Sea freighter before beginning water survival training. From left are Soyuz Commander Yuri Gidzenko; Commander Bill Shepherd and Flight Engineer Sergei Krikalev, and in the background is a mockup of the Russian Soyuz spacecraft descent module used in training. The crew is scheduled to be launched aboard a Soyuz spacecraft in January 1999.

3) Shepherd, Gidzenko and Krikalev undergo survival training, releasing smoke bombs that would help rescuers locate them if they landed in water.

4) U.S. Astronaut Carl Walz, who will be a member of the fourth ISS resident crew, looks out a porthole at the Khrunichev factory.

5) Shepherd prepares to plunge into the water from a Soyuz mockup in the Black Sea during survival training.

6) Pressurized Mating Adapter-1 is moved for further processing in KSC's Space Station Processing Facility. The cone-shaped connector is one of two that will be attached to Node 1 during ground processing. Node 1 and the two PMAs will be launched aboard the Space Shuttle *Endeavour* on STS-88 in July 1998.

7) Shepherd plunges from the Soyuz mockup into the Black Sea.

8) STS-88 crew members pose with Node 1 in the high bay at KSC. From left are Pilot Rick Sturckow, Mission Specialist Nancy Currie, Commander Bob Cabana and Mission Specialist Jim Newman.

9) Covered in a protective sheath, Node 1 is hoisted from its transporting container for installation in its work stand at KSC. The 18-foot-in-diameter, 22-foot-long aluminum module was manufactured by The Boeing Co. at Marshall Space Flight Center.

10) Russian technicians work on the almost completed aft portion of the U.S.-funded and Russian-built FGB.

11) Russian technicians work on the Service Module shortly after it completed a pressurization test in September. The first fully Russian contribution to the ISS is to launch in December 1998 and provide early power, propulsion, life support, communications and living quarters.

12) A Russian technician works on the forward end of the Service Module, which will be the third station element, joining the FGB and Node 1 on orbit.

13) A close-up view of Node 1 in its work stand in the Space Station Processing Facility shows two of its six hatches that will serve as docking ports.

14) *Endeavour* prepares to capture the FGB using the shuttle's mechanical arm in this artist's depiction of the first assembly flight. The shuttle will carry Node 1, and attach it to the already orbiting FGB. Once the FGB is captured using the mechanical arm, Astronaut Nancy Currie will maneuver the arm to dock the FGB to the conical mating adapter at the top of Node 1 in the shuttle's cargo bay.

15) This digital artist's concept shows the first two elements of the International Space Station joined in orbit, the FGB on the left and Node 1 on the right.

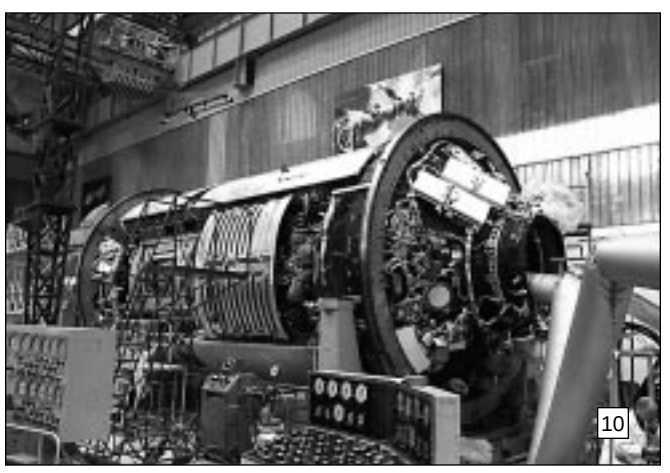
16) JSC space walk trainer Wayne Wedlake, second from right, demonstrates an EVA power tool to STS-88 crew members Jerry Ross, left, Jim Newman and Rick Sturckow, right.

17) Ross practices using the tool during an acceptance test with Pressurized Mating Adapter 1 and Node 1 at KSC.

18) From right, Ross, Struckow and Newman practice removing cable umbilicals from their stowed position on the pressurized mating adapters and attaching them to Node 1, using specially designed tools.

19) Pressurized Mating Adapter 2 awaits prelaunch processing in the Space Station Processing Facility at KSC.

20) STS-88 Commander Bob Cabana looks over the area around a hatch from inside the Node 1 module at KSC. ❑



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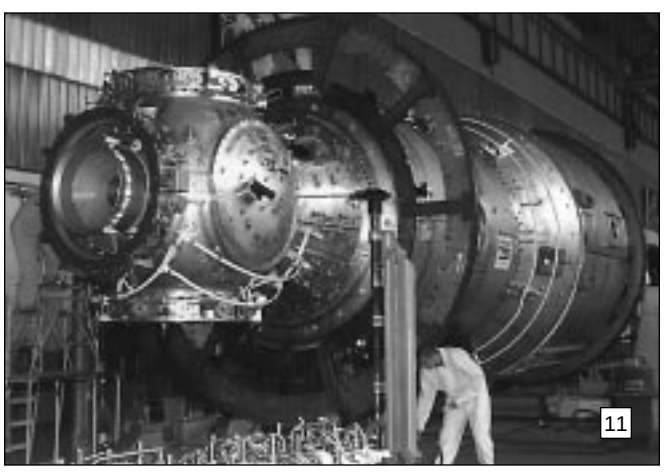

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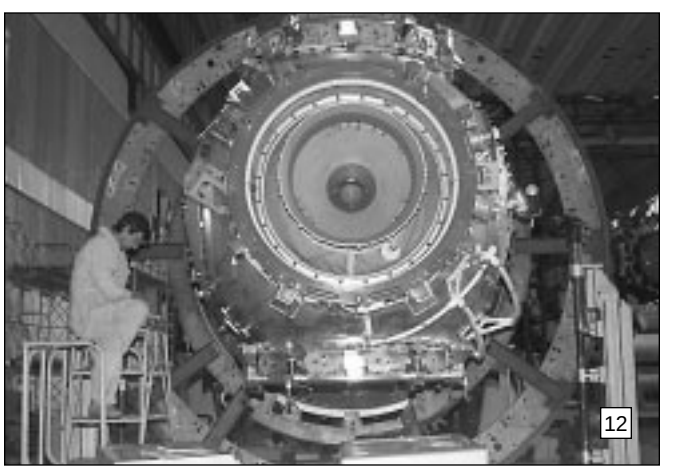

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